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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,757	09/11/2006	Sami Gronstrand	OUTT 3527	9889
7812 7590 07/07/2008 SMITH-HILL AND BEDELL, P.C. 16100 NW CORNELL ROAD, SUITE 220 BEAVERTON, OR 97006				
EXAMINER LITHGOW, THOMAS M				
ART UNIT 1797		PAPER NUMBER		
MAIL DATE 07/07/2008		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/598,757

Applicant(s)

GRONSTRAND ET AL.

Examiner

Thomas M. Lithgow

Art Unit

1797

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2008.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-36 is/are pending in the application.
4a) Of the above claim(s) none is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 25-36 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/CIS)
4) ☐ Interview Summary (PTO-413)
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____
Paper No(s)/Mail Date _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C.

112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 33-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 33, the phrase “the connecting element” lacks antecedent basis.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 25-27, 31 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Krishnaswamy (US 4800017) or Daman (US 2944802) alone or further in view of either one of Jackson (US 4551285) or Booth (US 2875897). Krishnaswamy (US 4800017)- hereafter alternatively referred to as US '017 – discloses a stator made up of four

segments ("supporting structure") having 4 blades ("flow regulators") defining a circular stator (see fig. 4 and col. 5, lines 60-65). Daman '802 similarly discloses a segmented stator structure (see fig. 4) having 6 or 8 segments depending on the desired circumstances in the cell [col. 4, lines 59-67]. Each segment, analogous to applicant's "supporting structure" has three "flow regulators" 64 (aka vanes). Applicant asserts that the recited language "substantially parallel" flow regulators defines over the radially oriented "flow regulators" of US '017. While different, such a minor change in the shape of the stator blades is a matter of design choice with results which would be similar to the well known radial blades especially in large rotor/stator combinations in which the angled aspect of the blades becomes less significant (closer to parallel) as the diameter of the rotor increases. Generally a minor change in shape with no persuasive evidence that such a shape change was somehow significant is considered obvious to one of ordinary skill- In re Dailey 149 USPQ 47 (CCPA 1966). In any event, either one of Booth '897 or Jackson '285 disclose that stator blades are known in the flotation art that include parallel adjacent side walls thereby defining a parallel flow between the stator blades instead of a purely expanding radial flow as taught by US '017 or Daman '802. In Booth '897 see figs. 4 and 6

and in Jackson see fig. 5. This parallel flow between the stator blades results in a decreased power use as set forth in Jackson '285. As applicant has recited "substantially parallel" this broad modification would read on the combination as set forth above. To modify either one of US '017 or Daman '802 with such "substantially parallel" oriented stator blades as taught by either one of Booth '897 or Jackson '285 would have been obvious to one of ordinary skill in the art at the time of the invention.

5. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 25 above, and further in view of either one of SU 1273174 or Tucker (US 2190852). The use of different sized and or located stator blades (flow regulators) is taught by either of Tucker '852 or SU '174. The use of such varied stator blades+32 on US '017 or Daman '802 would have been within the ordinary skill of the art.

6. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 25 above, and further in view of RU 2187380. RU '380 teaches the advantageous use of a multiple level stator. To employ such supporting structure in US '017 or Daman '017 would have been obvious to one of ordinary skill in the art.

7. Claim 32-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 25 and 29 respectively above, and further in view of Green (US 4062526). The use of "connecting elements" in addition to "supports" to hold the "flow regulators" of a stator is taught by Green '526. The use of such elements for their intended purpose in US '017 would have been obvious to one of ordinary skill in the art.

Response to Arguments

8. Applicant's arguments filed 02 April 2008 have been fully considered but they are not persuasive. Applicant's brief remarks were exclusively directed at the substantially parallel language of claim 25. This has been addressed in the body of the claim rejection.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final

action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas M. Lithgow whose telephone number is 571-272-1162. The examiner can normally be reached on Mon. -Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas M. Lithgow/

Primary Examiner, Art Unit 1797

Thomas M. Lithgow
Primary Examiner
Art Unit 1797

TML